

REMARKS

This Amendment is being filed in response to the Final Office Action mailed April 27, 2009, which has been reviewed and carefully considered. Entry of the present amendment and allowance of the present application in view of the amendments made above and the remarks to follow are respectfully requested.

Claims 1-14 remain in this application, where 1 and 14 are independent.

By means of the present amendment, the drawings have been amended to correct FIGS 1-2. It appears that in the Replacement sheet of the drawings including FIG 1, filed on January 30, 2009, the reference numerals 11, 9 and 35 (in FIG 1) point to incorrect locations. The currently submitted FIG 1 is identical to the original FIG 1. Further, in the Replacement sheet of the drawings including FIG 2, filed on January 30, 2009, reference numeral 3 (in FIG 2) is inadvertently deleted along with reference numeral 31. The currently submitted FIG 2 is identical to the original FIG 2, except that reference numeral 31 is deleted. Further, FIG 3 is

amended to delete the reference numeral 2 pointing to the discharge vessel, while keeping reference numeral 3 also pointing to the discharge vessel (where reference numeral 3 was deleted in the replacement sheet filed on January 30, 2009). Replacement sheets including FIG 1-3 are enclosed. Further, annotated marked-up version of the sheets including FIGs 1-3 is also enclosed for convenience. Applicants respectfully request approval of the enclosed proposed drawing changes.

By means of the present amendment, claims 1-12 and 14 have been amended for non-statutory reasons, such as for better form including beginning the dependent claims with 'The' instead of 'A', and beginning the dependent claims with 'A'. Such amendments to claims 1-12 and 14 were not made in order to address issues of patentability and Applicants respectfully reserve all rights under the Doctrine of Equivalents.

In the Final Office Action, claims 1-14 are rejected under 35 U.S.C. §112, second paragraph for certain informalities. This rejection is respectfully traversed. However, to advance prosecution, the claims have been amended for better clarity. It

is respectfully submitted that this rejection of claims 1, 4, 6 and 14 has been overcome. Accordingly, withdrawal of this rejection is respectfully requested.

In the Final Office Action, claims 1-2 and 4-13 are rejected under 35 U.S.C. §102(e) over U.S. Patent No. 6,861,805 (Jackson). Further, claim 3 is rejected under 35 U.S.C. §103(a) over Jackson in view of U.S. Patent Application Publication No. 2003/0025453 (Kakisaka), where the Publication No. is missing on page 7 of the Final Office Action. However, during a telephone conversation between Examiner Lee and the undersigned, Examiner Lee indicated that the Publication No. is 2003/0025453. Confirmation is respectfully requested. In addition, claim 14 is rejected under 35 U.S.C. §103(a) over U.S. Patent No. 6,536,918 (Boroczki) in view of Jackson. Applicants respectfully traverse and submit that claims 1-14, as amended, are patentable over Jackson, Kakisaka and Boroczki for at least the following reasons.

Jackson is directed to a ceramic metal halide having a molybdenum coil antenna wrapped around a discharge vessel. The molybdenum coil antenna protects the discharge vessel from

explosion and also serves as antenna for starting the lamp. The discharge vessel includes various salts, such as 15 mg of 14% NaI, 7% TlI, 12% DyI<sub>3</sub>, 12% HoI<sub>3</sub>, 12% TmI<sub>3</sub> and 43% CaI<sub>2</sub>, as recited on column 5, lines 20-21. As correctly noted on page 7 of the Final Office Action, Jackson does not disclose or suggest that X is selected from Ce, Pr, and Nd. Kakisaka is cited in an attempt to remedy the deficiencies in Jackson.

Kakisaka is directed to a metal halide lamp that includes an arc tube made of light-transmissive ceramic, in which a pair of electrodes is provided and cerium iodide (CeI<sub>3</sub>) and sodium iodide (NaI).

It is respectfully submitted that Jackson, Kakisaka, and combinations thereof, do not disclose or suggest the present invention as recited in independent claim 1, and similarly recited in independent claim 14 which, amongst other patentable elements, recites (illustrative emphasis provided):

wherein said ionizable salt comprises NaI, TlI, CaI<sub>2</sub> and X-iodide, wherein X comprises Nd.

A lamp comprising neodymium iodide is nowhere disclosed or suggested in Jackson and Kakisaka, alone or in combination.

Boroczki is cited to allegedly show other features and do not remedy the deficiencies in Jackson and Kakisaka.

Accordingly, it is respectfully submitted that independent claims 1 and 14 are allowable, and allowance thereof is respectfully requested. In addition, it is respectfully submitted that claims 2-13 should also be allowed at least based on their dependence from amended independent claim 1 as well as their individually patentable elements. Accordingly, separate consideration of each of the dependent claims is respectfully requested.

For example, claim 4 recites that the molar percentage ratio  $X\text{-iodide}/(\text{NaI}+\text{TlI}+\text{CaI}_2+X\text{-iodide})$  lies between 0.5 and 7%. By contrast, column 8, line 66 to column 9, line 2 of Jackson (cited on page 4 of the Final Office Action), merely recites that the lamp contains "about 10-50 mg metal halide in a ratio of 6-25 wt % mol NaI, 5-6 wt % TlI, 34-37 wt % CaI<sub>2</sub>, 11-18 wt % DyI<sub>3</sub>, 11-18 wt % HoI<sub>3</sub>, and 11-18 wt % TmI<sub>3</sub>." (Emphasis added) The ratio disclosed in Jackson does not appear to disclose or suggest that the molar percentage ratio  $X\text{-iodide}/(\text{NaI}+\text{TlI}+\text{CaI}_2+X\text{-iodide})$  lies between 0.5

and 7%, as recited in claim 4.

On page 5 of the Final Office Action, column 8, lines 66-67 of Jackson is cited to allegedly show that "the amount of NaI, TlI,  $\text{CaI}_2$  and X-iodide lies between 0.001 and 0.5 g/cm<sup>3</sup>," as recited in claim 6. As noted above, column 8, lines 66-67 of Jackson specifically recites the lamp contains "about 10-50 mg metal halide in a ratio of 6-25 wt % mol NaI, 5-6 wt % TlI, 34-37 wt %  $\text{CaI}_2$ , 11-18 wt %  $\text{DyI}_3$ , 11-18 wt %  $\text{HoI}_3$ , and 11-18 wt %  $\text{TmI}_3$ ." (Emphasis added) That is, the only reference to weight is having 10-50 mg of metal halide, with no reference to any volume. Such a disclosure has nothing to do with disclosing anything in units of g/cm<sup>3</sup>, and does not disclose or suggest that the "X-iodide lies between 0.001 and 0.5 g/cm<sup>3</sup>," as recited in claim 6. (illustrative emphasis provided)

Further, column 5, lines 61-67 of Jackson, cited on page 5 of the Final Office Action in rejection claim 7, merely recites that the Jackson lamp includes electrodes. Such a recitation has nothing to do, and does not disclose or suggest the "the filling of the discharge space also comprises a halide selected from Mn and

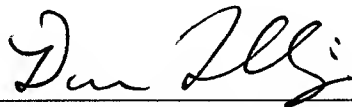
In," as recited in claim 7.

Further, claim 10 recites that "a tip to bottom distance (t-b) between the discharge vessel wall and the electrode tip and which the tip to bottom distance (t-b) is at most 4.5 mm." (Illustrative emphasis provided) This feature is nowhere disclosed or suggested in Jackson. Rather, column 8, lines 41-44 of Jackson, cited on page 5 of the Final Office Action, merely discloses that "the tip-to-bottom (ttb) distance, ie. the length of electrode inside the arc tube body, is in a range of 1 mm to 4 mm." (Emphasis added)

In addition, Applicants deny any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Applicants reserve the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

In view of the above, it is respectfully submitted that the present application is in condition for allowance, and a Notice of Allowance is earnestly solicited.

Respectfully submitted,

By   
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Enclosure: Replacement drawing sheets (2 sheet including FIGs 1-3)  
Annotated drawing sheets (2 sheets including FIGs 1-3)

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